

CLAIM SET AS AMENDED

1. (Currently Amended) A broadcasting service system using a mobile communication terminal, comprising:

a converting ~~mean which converts a~~ unit for converting video and audio ~~signal~~ signals provided from a moving picture information into a format ~~agreed~~ compatible with a signal and transmission standard of a mobile communication network; and

B2 a transmitting ~~mean which transmits~~ unit for transmitting the converted video and audio ~~signal~~ signals to a mobile communication subscriber terminal through a certain transmission channel of the mobile communication network, the converting unit further comprising:

a controlling unit for varying an encoding rate of the video signals and a transmission bandwidth of the video signals in accordance with telephone call quantity information.

2. (Currently Amended) The broadcasting service system according to claim 1, wherein the video and audio ~~information agrees~~ signals are compatible with both a first signal standard and a second signal standard for a television broadcast ~~broadcasting, the converted digital video and audio information agreeable to the mobile communication network agrees with a second signal standard, and the first and second signal standard agree~~ standards being compatible with a another signal standard ~~which is~~ capable of converting between different systems.

3. (Currently Amended) The broadcasting service system according to claim 2, wherein the first signal standard agrees with a MPEG2 ~~(Moving Picture Experts Group 2)~~ (Moving Picture Experts Group 2), the second signal standard agrees with a MPEG4 ~~(Moving Picture Experts Group 4)~~ (Moving Picture Experts Group 4), H.26L, H.263, and H.26X formats.

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4. (Currently Amended) The broadcasting service system according to claim 1, wherein the converting ~~mean~~ unit includes a coding ~~mean~~ unit which codes the digital video and audio ~~data agreeable~~ signals to be compatible with the a digital television broadcasting system and formats the coded digital video and audio ~~data agreeable~~ signals to be compatible with the mobile communication network ~~transmission, and a converting-controlling mean which convert controls a transmission rate for agreeing with the transmission rate of the mobile communication network.~~

5. (Currently Amended) The broadcasting service system according to claim 1, wherein the converting ~~mean~~ unit includes a digital signal converting ~~mean~~ unit which converts an analog television broadcasting signal into a digital signal, and a coding ~~mean~~ unit which formats and codes the converted broadcasting signal having moving picture and audio signals ~~and codes it, and~~ ~~a converting-controlling mean which convert controls transmission rate in order to agree with the transmission rate of the mobile communication network.~~

6. (Currently Amended) The broadcasting service system according to claim 1, wherein the transmitting ~~mean~~ unit includes a ~~putting mean~~ an outputting unit which ~~puts~~ outputs the formatted ~~digital~~ video and audio data signals on a said transmission channel, and a formatting-transmission ~~mean~~ unit which formats and transmits the ~~digital~~ video and, audio ~~data~~ signals, along with additional broadcasting information.

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7. (Currently Amended) The broadcasting service system according to claim 1, wherein ~~the~~ EPG (Electronic Program Guide) data is formatted and transmitted with the video and, audio ~~signal~~ signals and additional information.

8. (Currently Amended) The broadcasting service system according to claim 1, wherein the transmitting and the converting ~~means~~ units transmit data through a connected transmission channel between a the mobile communication subscriber terminal and a base station.

9. (Currently Amended) The broadcasting service system according to claim 1, wherein the converting and the transmitting ~~mean~~ units allot at least one transmission channel on the mobile communication network, and transmit the video and audio ~~signal~~ signals through the allotted channel.

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10. (Currently Amended) The broadcasting service system according to claim 1, wherein the ~~television~~ broadcasting service system using the mobile communication includes a an identifying ~~mean~~ unit which identifies a an individual mobile communication subscriber ~~subscribed the television video and audio signal between~~ from among all mobile communication subscribers of the video and audio signals, and a payment demanding ~~mean~~ unit which demands a payment corresponding to a reception of the video and audio ~~signal~~ to signals for the identified individual subscriber.

11. (Currently Amended) A mobile communication terminal, comprising:

a digital video and audio ~~data~~ signal reception ~~mean~~ unit;

a ~~decoding mean~~ decoder which decodes the received digital video and audio ~~data~~ signal received from a mobile communication network; and

an outputting ~~mean~~ unit which outputs the decoded video and audio signal,

wherein the mobile communication terminal receives and decodes the video signal at a rate which varies in accordance with a voice telephone call quantity information and a variable transmission rate of a mobile communication network.

12. (Currently Amended) The mobile communication terminal according to claim 11, wherein the mobile communication terminal includes a

receiving-decoding ~~mean~~ unit which receives and decodes ~~the~~ an EPG (Electronic Program Guide) signal from the ~~television~~ video signal transmitted from the mobile communication network, and a transmitting ~~mean~~ unit which transmits a subscriber search answer of the decoded EPG (Electronic Program Guide) ~~data~~ signal to ~~the~~ a broadcast service system.

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13. (Currently Amended) The mobile communication terminal according to claim 11, wherein the mobile communication terminal is one of a cellular phone, a PCS terminal, or an IMT-2000 terminal.

14. (Currently Amended) The mobile communication terminal according to claim 11, wherein the mobile communication terminal includes a web browser ~~mean~~ for searching the an EPG ~~data~~ signal and additional information transmitted from the mobile communication network.

15. (Currently Amended) A broadcasting service system using a mobile communication terminal, comprising:

a digital video and audio input ~~mean~~ unit which ~~is provided a~~ receives digital video and audio ~~signal~~ signals broadcast from a provider of the pertinent information;

a transcoding ~~mean which converts~~ unit for converting the digital video and audio ~~signal inputted~~ signals received from the digital video and audio

input ~~mean~~ unit into a format and transmission rate agreeable to ~~the~~ a mobile communication network; and

a transmitting ~~mean which puts~~ unit for outputting and transmitting the transcoded-converted digital ~~broadcasting signal~~ broadcast signals on a certain allotted channel of the mobile communication network, ~~and transmits it,~~

wherein an encoding rate of the video signals and a transmission rate of the mobile communication network are varied in accordance with a voice telephone call quantity information.

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16. (Currently Amended) The broadcasting service system according to claim 15, wherein the broadcasting service system includes a an EPG (Electronic Program Guide) data converting ~~mean~~ unit which converts the EPG (Electronic Program Guide) data for selecting ~~the~~ a digital ~~broadcasting~~ broadcast channel into a format agreeable to the mobile communication network, and a an additional information converting ~~mean~~ unit which converts ~~the~~ additional information of the digital ~~broadcasting~~ broadcast signals into a format agreeable to the mobile communication network.

17. (Original) The broadcasting service system according to claim 16, wherein the broadcasting service system transmits the EPG (Electronic Program Guide) data and additional information as the agreeable format to the mobile communication network.

18. (Currently Amended) The broadcasting service system according to claim 16, wherein the EPG (Electronic Program Guide) data converting ~~mean~~ unit includes

a ~~decoding mean~~ decoder which decodes the inputted EPG (Electronic Program Guide) ~~stream data~~ data of the digital ~~broadcasting~~ broadcast signals,

a restoring ~~mean~~ unit which restores the inputted EPG (Electronic Program Guide) ~~stream data~~ data of the digital ~~broadcasting~~ broadcast signals,

BZ a data base ~~mean~~ which stores a information corresponding to the restored EPG (Electronic Program Guide) data,

an EPG (Electronic Program Guide) information outputting ~~mean~~ unit which outputs the EPG (Electronic Program Guide) ~~information~~ data from the data base corresponding to a subscriber request, and

a converting ~~mean~~ unit which converts the additional information of the digital ~~broadcasting~~ broadcast signals into a format agreeable to the mobile communication network.

19. (Currently Amended) A broadcasting service system using a mobile communication terminal, comprising:

a digital signal processing ~~mean~~ unit for receiving a digital ~~broadcasting~~ broadcast signal and providing a ~~broadcasting~~ broadcast program to the a mobile communication network;

a ~~medium~~ media storing ~~mean~~ unit for storing the broadcasting information broadcast program processed by the digital signal processing ~~mean~~ unit;

a data processing and converting ~~mean~~ unit for converting the EPG (Electronic Program Guide) data and additional information processed by the digital signal processing ~~mean~~ unit into a signal format ~~agreed~~ compatible with the mobile communication network; and

02 a transcoder and transmission ~~mean~~ unit for receiving the video, and audio data signals of the broadcast signal and the additional information processed by the digital signal processing ~~mean~~ unit and converting it the video and audio signals into a signal format ~~agreeable to~~ compatible with the mobile communication network, and outputting it the video and audio signals and the additional information,

wherein an encoding rate of the video signals and a transmission rate of the mobile communication network are varied in accordance with a voice telephone call quantity information.

20. (Currently Amended) The broadcasting service system according to claim 19, ~~wherein~~ the digital signal processing ~~mean~~ unit includes:

a tuner for selecting the digital broadcasting broadcast signal ~~inputted through a transmission medium such as~~ received from a television broadcasting broadcast, ~~satellite broadcasting and~~ a satellite broadcast, or a cable broadcasting, broadcast; and

a ~~demodulating-mean~~ demodulator for restoring the selected digital broadcast ~~broadcasting~~ signal;_;

a ~~de-multiplexer~~ demultiplexer for fetching the EPG data and additional information from the demodulated digital ~~broadcasting~~ broadcast signal;_; and

a decoder for decoding the video and audio ~~signal~~ signals from the demodulated digital ~~broadcasting~~ broadcast signal.

21. (Currently Amended) The broadcasting service system according to claim 19, wherein the data processing and converting unit includes:

a an EPG (Electronic Program Guide) data decoding ~~mean~~ unit for decoding the EPG (Electronic Program Guide) data of the digital ~~broadcasting~~ broadcast signal;_;

a signal ~~converting-mean~~ converter for converting the decoded EPG (Electronic Program Guide) data into a signal format ~~agreed~~ compatible with the mobile communication network;_;

a protocol ~~converting-mean~~ converter for converting the converted EPG (Electronic Program Guide) data into a protocol ~~agreed~~ compatible with the mobile communication network;_;

a ~~decoding-mean~~ decoder for decoding the additional information of the digital ~~broadcasting~~ broadcast signal;_;

an additional information signal ~~converting-mean~~ converter for converting the decoded additional information into a signal format ~~agreed~~ compatible with the mobile communication network;_; and

an additional information protocol ~~converting-mean~~ converter for converting the converted additional information into a protocol ~~agreed~~ compatible with the mobile communication network.

22. (Currently Amended) The broadcasting service system according to claim 19, wherein the transcoder and transmission unit includes:

B2 a transcoder for transcoding the digital ~~broadcasting~~ video, and audio ~~signal~~ signals into a format ~~agreed~~ compatible with the mobile communication network,;

a transmission rate ~~control-mean~~ controller for controlling the a transcoder transmission rate ~~agreeable-to~~ compatible the mobile communication network,;

a ~~converting-mean~~ converter for converting the output of the data processing and converting ~~mean~~ unit into a data protocol ~~agreeable-to~~ compatible with the mobile communication network,;

a synchronization processing ~~mean~~ unit for synchronizing synchronization request information during the transcoding and protocol converting,; and

a transmitting ~~mean~~ unit for transmitting the ~~processed~~ converted data in real time by allotting it ~~on-the~~ converted data to a certain channel of the ~~wireless~~ mobile communication network.

23. (Currently Amended) A broadcasting service method using a mobile communication terminal, comprising the steps of:

converting a ~~broadcasting~~ broadcast signal including digital video and audio ~~data~~ signals into a format ~~agreed~~ compatible with a signal and transmission standard of ~~the~~ a mobile communication network; and

transmitting the converted digital video and audio ~~data~~ signals to a subscriber through a certain transmission channel of the mobile communication network,

wherein an encoding rate of the video signals and a transmission rate of the mobile communication network are varied in accordance with a voice telephone call quantity information.

24. (Currently Amended) The method according to claim 23, wherein the converting process includes the steps of:

(a) converting a the video and audio ~~data~~ signals of the ~~digital broadcasting broadcast~~ signal into the ~~data agreeable to the~~ format compatible with a standard and transmission rate of the mobile communication network; and

(b) converting ~~the~~ EPG (Electronic Program Guide) data and additional information into the ~~information agreeable to~~ format compatible with the standard and transmission rate of the mobile communication network.

25. (Currently Amended) The method according to claim 23, wherein the transmission process includes the steps of:

(a) ~~synchronization—controlling~~ the synchronization-controlling synchronization request information of the converted digital video and audio ~~data~~ signals, EPG (Electronic Program Guide) data, and additional information;

(b) converting the ~~data~~ digital video and audio signals, the EPG data, and the additional information into a protocol ~~agreeable to~~ compatible with the mobile communication network; and

(c) allotting a certain transmission channel and ~~putting~~ outputting the digital video and audio signals, the EPG data, and the additional information corresponding to the protocol of the mobile communication network on ~~the~~ a certain transmission channel.

26. (Currently Amended) A broadcasting service method using a mobile communication terminal, comprising the steps of:

transmitting the EPG (Electronic Program Guide) data to a subscriber through ~~the~~ a mobile communication network when there is a ~~broadcasting~~ service request for a broadcast from ~~the~~ a subscriber;

selecting a channel by searching the transmitted EPG (Electronic Program Guide) data:

converting ~~the~~ video and audio data of the selected channel into ~~the data~~ agreed a format compatible with ~~the~~ a standard of the mobile communication network; and

transmitting the converted data through ~~the~~ a certain transmission channel of the mobile communication network,

wherein an encoding rate of the video signals and a transmission rate of the mobile communication network are varied in accordance with a voice telephone call quantity information.

27. (Currently Amended) The method according to claim 26, ~~wherein~~ further comprising the steps of:

granting a right for watching the digital broadcasting is granted to a the subscriber to watch the requested broadcast; and

providing the EPG (Electronic Program Guide) information data is provided to the subscriber after confirming and certifying granting the right.

28. (Currently Amended) The method according to claim 26, ~~wherein~~ further comprising the steps of:

granting an ID is granted to the mobile communication subscriber; and
requiring a payment for the digital broadcasting service is required to from the subscriber by identifying the ID.

29. (Currently Amended) A broadcasting service system using a mobile communication terminal, comprising:

an analog broadcasting reception ~~mean which receives~~ unit for receiving an analog television ~~broadcasting~~ broadcast signal;

a digital ~~converting mean which converts~~ converting unit for converting the analog ~~broadcasting~~ broadcast signal received by the analog broadcasting reception ~~mean~~ unit into a digital signal;

an encoding-converting ~~mean which converts~~ unit for converting the digital ~~broadcasting~~ broadcast signal converted by the digital converting ~~mean~~ unit into a signal ~~agreed~~ compatible with the a mobile communication network; and

32 an allotting-transmitting ~~mean which allots~~ unit for allotting the converted digital ~~broadcasting~~ broadcast signal by the encoding-converting ~~mean on the~~ unit to a certain transmission channel of the mobile communication network, and ~~transmits it then~~ transmitting the digital broadcast signal by the encoding-converting unit,

wherein the encoding-converting unit and the allotting-transmitting unit control an encoding rate of the video signals and a transmission rate of the mobile communication network are varied in accordance with a voice telephone call quantity information.

30. (Currently Amended) The system according to claim 29, wherein the system includes a an EPG (Electronic Program Guide) signal and additional information abstracting ~~mean~~ unit for abstracting ~~the~~ EPG (Electronic Program Guide) signal and additional information, and an encoding-converting ~~mean~~ unit for converting the abstracted EPG (Electronic Program Guide) signal and

the additional information into a signal agreed compatible with the mobile communication network.

31. (Currently Amended) The system according to claim 29, wherein the encoding-converting ~~mean~~ unit encodes the analog/digital converted broadcasting broadcast signal into ~~format agreed with the mobile communication network such as a~~ an MPEG4 (Moving Picture Experts Group4) (Moving Picture Experts Group 4), H.26L, H.263 and , or H.26X format, and ~~puts it on~~ outputs the encoded signal to the certain transmission channel.

32. (Currently Amended) A mobile communication subscriber terminal, comprising:

a broadcasting broadcast reception ~~mean which receives~~ unit for receiving a broadcasting broadcast signal as a moving picture information;

a communication processing ~~mean which receives~~ unit for receiving a call signal provided to the ~~subscriber~~ mobile communication terminal through the a mobile communication network, and ~~restore outputs~~ for restoring the call signal, and ~~encoding outputs~~ for outputting a subscriber call signal through the mobile communication network;

a ~~decoding mean which restores~~ decoder for restoring the received broadcasting broadcast signal received by the broadcasting broadcast reception ~~mean~~ unit;

an outputting ~~mean which outputs~~ unit for outputting the restored ~~broadcasting broadcast~~ signal restored by the ~~decoding mean~~ decoder for being watched viewing on the mobile communication terminal; and

a selecting ~~mean~~ unit for selecting ~~the broadcasting~~ a broadcast signal reception mode and a mobile communication telephone call mode,

wherein the mobile communication terminal receives and decodes the broadcast signal at a rate which varies in accordance with a voice telephone call quantity information and a transmission rate of a mobile communication network.

33. (Currently Amended) The terminal according to claim 32, wherein the ~~broadcasting broadcast~~ reception ~~mean~~ unit includes an antenna and a tuner,

the ~~decoding mean~~ decoder includes a demodulation ~~mean~~ unit for demodulating a ~~video and audio~~ signals of ~~the an~~ analog television broadcasting signal selected from the tuner, and

the outputting ~~mean~~ unit includes a speaker for outputting the demodulated ~~voice~~ audio signal and a monitor for displaying the demodulated video signal on the mobile communication terminal when the ~~television broadcast~~ signal is the an analog television broadcast signal ~~broadcasting in order to watch the analog television broadcasting signal on the mobile communication terminal.~~

B2 34. (Currently Amended) The terminal according to claim 32, wherein the broadcasting reception ~~mean~~ unit includes a bit stream reception ~~mean~~ unit for receiving ~~the a~~ a bit stream from ~~the a~~ a terminal antenna and ~~the a~~ a digital broadcasting broadcast signal,

the ~~decoding mean~~ decoder includes a demodulation and restoring ~~mean~~ unit for demodulating ~~the~~ the video and audio ~~data~~ signals of the digital ~~television~~ broadcasting broadcast signal and restoring the demodulated video and audio ~~data~~ signals, and

the outputting ~~mean including the~~ unit includes a speaker for outputting the restored audio signal and ~~the a~~ a monitor for displaying the restored video signal on the mobile communication terminal when the broadcasting broadcast signal is the digital ~~television broadcasting~~ broadcast signal ~~in order to watch the digital television broadcasting signal on the mobile communication terminal.~~

35. (Currently Amended) The terminal according to claim 32, wherein the mobile communication subscriber terminal is one of a cellular phone, a PCS terminal, or an IMT-2000 terminal.

36. (New) The broadcasting service system using a mobile communication terminal according to claim 1, wherein the video signals are television broadcast signals, and the mobile communication subscriber terminal is a cellular phone.

37. (New) The broadcasting service system using a mobile communication terminal according to claim 11, wherein the video signal is a television broadcast signal, and the terminal is a cellular phone.

B 38. (New) The broadcasting service system according to claim 1, wherein the controlling unit varies the encoding rate of the video signals in accordance with the telephone quantity information at a base station, so that the video signals do not take all available bandwidth of the base station.

39. (New) The broadcasting service system according to claim 19 wherein the controlling unit varies the encoding rate of the video signals in accordance with the telephone quantity information at a base station, so that the video signals do not take all available bandwidth of the base station.
